

News Highlights – Issue 21 (December 2007):

[Jennic introduces JenNet stack for scalable wireless sensor networks with new user-friendly programming interfaces](#)

[Cyan launches Cy-Solved™ strategy for RF, USB, Ethernet and motor control applications](#)

[Maxwell Technologies introduces 75-Volt ultracapacitor module for renewable energy and industrial applications](#)

Jennic introduces JenNet stack for scalable wireless sensor networks with new user-friendly programming interfaces



Jennic, available through [GLYN High-Tech Distribution](#), has introduced JenNet, a new free proprietary wireless networking stack for its powerful range of 32-bit single chip wireless microcontrollers. Based on the IEEE802.15.4 standard, it is specially designed to be easy to use and is fully scalable from just a few nodes to large networks of up to 1,000 nodes. Complementing Jennic's existing ZigBee stack which provides interoperability with other ZigBee devices and mesh networks, JenNet addresses a wide range of

applications, including street lighting systems with long strings of nodes, and large building management systems.

JenNet addresses many of the issues found by developers when creating wireless sensor networks, including the ease with which this functionality can be added to their products. It does this by providing users with an easy application development path through its two simple programming interfaces, Jenie and AT-Jenie. With its small memory footprint, which can be as low as 16kB, JenNet ensures that up to 80kB application space is available for a 100-node network, giving designers the flexibility to develop complex applications if required.

A range of network topologies are possible, including star, tree or linear formations that can accommodate long strings of nodes. Self configuration and automatic healing ensure that networks constructed using JenNet are tolerant of node failures. It also supports sleeping end devices for multi-year battery life, encryption of packets for secure data transmission and over the air download for easy updating of nodes. Furthermore, since it is based on the established IEEE802.15.4 standard at 2.4GHz, it offers excellent co-existence with WiFi and Bluetooth.

Development cycles are kept short through the provision of two easy to use software interfaces, Jenie and AT-Jenie. These are provided together with products that facilitate all stages of the development cycle, from initial design support with evaluation kits, through modules for low volumes and fast market introduction, to chips for the lowest cost high volume manufacture. AT-Jenie provides a simple serial command interface to the network, enabling existing products to add wireless network capability by using the chips or modules as a wireless co-processor alongside a PC or existing host processor. This deskills the wireless network design process, opening it up to many new users and also provides a simple method of evaluating wireless for a particular application.

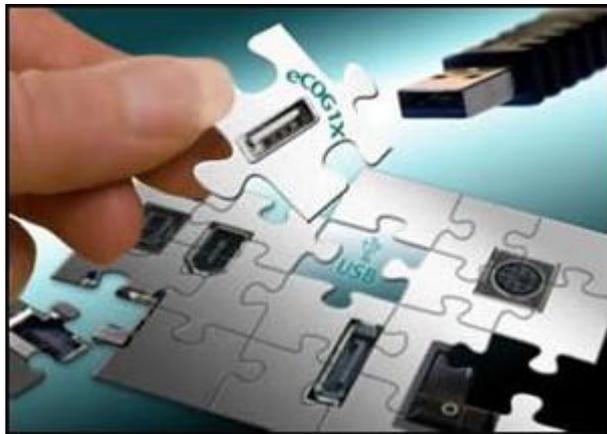
Jenie is a simplified 'C' programmer's interface, providing access to the whole of the network stack and enabling users to develop fully customized 'C' applications using Jennic's standard software development kit which is freely available with an unlimited license.

JenNet, AT-Jenie, and Jenie are available now and can be downloaded from the support section of Jennic's website, www.jennic.com/support, along with many code examples and application notes.

For more details about Jennic ZigBee and IEEE 802.15.4 wireless products, please send us an email at sales@glyn.com.au



Cyan launches Cy-Solved™ strategy for RF, USB, Ethernet and motor control applications



Cyan, available through [Glyn High-Tech Distribution](http://Glyn_High-Tech_Distribution), is launching its new Cy-Solved™ philosophy, the concept underpinning Cyan's microcontrollers. Much more than just a silicon device Cy-Solved gives you the means to implement a range of solutions ahead of your competition. Cy-Solved incorporates ready to go solutions, software stacks, applications examples, modular software based on easy to use APIs, evaluation boards and production hardware modules from partners all pulled together through the graphically based CyanIDE development tool.

Cy-Solved can remove the need to understand a complex technology – it can be incorporated as-is into an application but also supports an ability to be easily customised. Either way, Cy-Solved gives you a head start on the road to market.

The following Cy-Solved applications are available:

RF- Solved™ - an ISM Band networking solution that offers a unique level of flexibility, enabling the system designer to escape the constraints and limitations of standards based alternatives

USB- Solved™ - delivering high level of functionality, supporting host, peripheral and OTG ("On The Go") operation

Ethernet- Solved™ - a comprehensive Ethernet solutions package including six Ethernet enabled members of the eCOG1X microcontroller family and two TCP/IP stacks

Motor Control- Solved™ - provides operational descriptions, modular control software and reference design hardware for the brushless DC (BLDC) motor and the permanent magnet synchronous motor (PMSM)

For more information about Cyan's Cy-Solved applications and eCOG1 microcontroller products, please visit their website at www.cyantechology.com or send us an email at sales@glyn.com.au



Maxwell Technologies introduces 75-Volt ultracapacitor module for renewable energy and industrial applications

Scaleable, Cost-Effective, Low-Maintenance, BOOSTCAP® Solution for Backup Power and Power Quality



Maxwell Technologies Inc., available through [GLYN High-Tech Distribution](#), is introducing a 75-volt BOOSTCAP® ultracapacitor module to provide a scaleable, cost-effective, low-maintenance solution to meet the backup power and power quality requirements of wind turbines and other renewable energy generation and industrial equipment applications.

Maxwell developed the new module in response to market demand for an easy-to-integrate energy storage building block for a variety of electrical system

functions, including:

- * Backup power for orderly shutdown of wind turbine blade pitch mechanisms and automated manufacturing equipment;
- * Buffering to enhance the consistency of wind, solar and wave power input into the utility grid;
- * Low-maintenance alternative to batteries for short-term bridge power for uninterruptible power supplies (UPS).

David Schramm, Maxwell's president and chief executive officer, said that the 75-volt module augments the company's existing line of standard multi-cell ultracapacitor module products ranging from 15 to 390 volts.

"These standard BOOSTCAP modules give system integrators and original equipment manufacturers a broad range of fully integrated, off-the-shelf options to match the energy storage and power delivery needs of all types of systems," Schramm said. "BOOSTCAP modules can be arrayed in series or parallel configurations to provide instantly available power for higher voltage applications."

The latest addition to the BOOSTCAP module product line is based on Maxwell's standard 3,000-farad Energy cell, which has demonstrated its performance and reliability in numerous transportation and industrial applications. The module is enclosed in a rugged, splash- and dust-resistant enclosure designed to ensure safe, reliable operation in harsh temperature, humidity and vibration conditions. The new BMOD0094 EO75 B02 75-volt module features an IP54 dust and water spray resistant design, is SAEJ 2383 vibration test compliant and includes an integrated temperature sensor to enable remote monitoring.

BOOSTCAP ultracapacitor products deliver up to 10 times the power and longevity of batteries, require no maintenance and operate reliably in extreme temperatures. In transportation applications, they efficiently recapture energy from braking for reuse in hybrid and all-electric drive trains, reducing energy consumption and emissions. They also provide compact, lightweight, "life-of-the vehicle" solutions to stabilize automotive power networks and power new, all-electric subsystems, such as drive-by-wire steering. In mission-critical industrial applications, where backup power ensures continued operation or a soft shutdown in the event of power interruptions, they provide reliable, cost-effective, maintenance-free energy storage. In wind turbine blade pitch and braking systems and other industrial applications, they provide a simple, solid state, highly reliable, solution to buffer short-term mismatches between the power available and the power required.

Maxwell is a leading developer and manufacturer of innovative, cost-effective energy storage and power delivery solutions. Its BOOSTCAP® ultracapacitor cells and multi-cell modules and POWERCACHE® backup power systems provide safe and reliable power solutions for applications in consumer and industrial electronics, transportation and telecommunications. Maxwell's CONDIS® high-voltage grading and coupling capacitors help to ensure the safety and reliability of electric utility infrastructure and other

applications involving transport, distribution and measurement of high-voltage electrical energy. Its radiation-mitigated microelectronic products include power modules, memory modules and single board computers that incorporate powerful commercial silicon for superior performance and high reliability in aerospace applications.

For more information about Maxwell's ultracapacitor products, please visit their website at www.maxwell.com or send us an email at sales@glyn.com.au



For more information about GLYN Ltd products, please visit our website at www.glyn.com.au

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